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Attachment 1: Thermal Electric Power Stations in the Cities of Tula, Belinskiy, Dzhezkazgan, Shchekino, and Moscow. This report gives some general information on the equipment and output of power stations in the above cities.

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Attachment 2: Thermal Electric Power Stations in Ostashkov, Kazan, Novo Kuybyshev, Minsk, and Omsk. This report gives general information on the equipment and output of power stations in the above cities.

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Attachment 3: Leningrad Branch of the Institute of Hydroelectric Planning. a brief outline of the functions and organization of the Leningrad Branch. A rough organizational sketch is also included.

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SUBJECT	Thermal Electric Power Stations in Ostashkov, Kazan, Novo Kuybyshev, Minsk, and Omsk	DATE DISTR.	
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THERMAL ELECTRIC POWER STATIONS IN OSTASHKOV, KAZAN, NOVO KUYBYSHEV, MINSK, AND OMSK

Ostashkov

1. For a one-and-a-half-month period in 1948, 50X1-HUM in Ostashkov (N 57-08, E 33-06) in the Kalininskaya oblast. This station had a capacity of 3,600 kilowatts and supplied electricity for the city of Ostashkov and also for a tanning plant. Since it was a small installation it did not have a transformer station. The equipment consisted of the following:

a. three 18-atmosphere boilers; date of installation and capacity not known

b. two 18-atmosphere steam turbines, one with capacity of 500 kilowatts and the other, 1,200 kilowatts

c. one turbogenerator with a capacity of 500 kilowatts and another with a capacity of 1,200 kilowatts.

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Kazan

2. For a three or four month period in 1950, Kazan (N 55-45, E 49-08), Kazanskaya oblast, Tatarskaya ASSR. This was a coal-fed installation which supplied the Kazan power system. As of 1950, the station had a capacity of 75,000 kilowatts. Prior to 1950, the equipment consisted of two turbines, each with a capacity of 25,000 kilowatts, and two generators — all manufactured by the Leningrad Metal Plant; the third generator and the third 25,000-kilowatt turbine installed in 1950 50X1-HUM

Novo Kuybyshev

3. 50X1-HUM This was a mazut-fed installation with a capacity of 25,000 kilowatts. Only the first stage of the installation was completed in 1951 but the station was to be expanded and converted to the use of coal. It had a transformer station, located in the open, with a cooling tower made of wood; there was one cement chimney morethan 40 meters high. The following equipment was installed in the summer of 1951:

a. two 110-atmosphere boilers, each with a capacity of 170 tons

b. one 90-atmosphere steam turbine with a mean capacity of 25,000 kilowatts and a maximum of 30,000; it was manufactured by the Leningrad Metal Plant. 50X1-HUM

only one additional turbine could be installed in the station;

Minsk

4. 50X1-HUM This was a coal-fed 50,000-kilowatt installation which supplied the Minsk power system; however, the main function of the station was to supply power to a soon-to-be-constructed tractor plant. 50X1-HUM The equipment consisted of the following:

a. a transformer station, located in the open 50X1-HUM

b. two 110-atmosphere boilers, each of which had a capacity of 200 tons of steam; one was installed in 1954 and the other some time prior to 1954.

c. two 90-atmosphere steam turbines, each with a mean capacity of 25,000 kilowatts and a maximum of 33,000 kilowatts; the one installed in 1954 was a BPT-25 type (sic) manufactured by the Leningrad Metal Plant; 50X1-HUM

d. two turbogenerators, one installed in 1954 and the other some time prior to 1954.

Omsk

5. 50X1-HUM As of early 1955, only the initial apparatus had been installed It was being constructed primarily to supply hot water and steam to a petroleum refinery then under construction at a site about two kilometers distant. The station had a capacity of 25,000 kilowatts and could be overloaded to 33,000 kilowatts; it was scheduled to be expanded The equipment installed in early 1955 consisted of the following: 50X1-HUM

a. a Soviet-made boiler with a capacity of 170 tons of steam

b. one BPT-type (sic), 90-atmosphere steam turbine, with a mean capacity of 25,000 and a maximum of 30,000 kilowatts; it was a product of the Leningrad Metal Plant.

c. one turbogenerator, with a 25,000 kilowatt capacity; it operated at an average of 30 and a maximum of 37.5 kilowatt amperes (sic: probably kilovolt amperes); it had been manufactured by the Kharkov Generator Plant.

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d. Ukrainian Institute of Hydroelectric Planning, Kiev, Ukrainskaya SSR.

3. The Leningrad Branch was organized in the same manner as similar USSR institutes (see sketch ~~on page~~). Its administration was under a director assisted by a deputy director. A chief engineer was in charge of the technical functions and was the responsible technician in the absence of the director. He was aided by a deputy chief engineer. Following is a list of the various sections and some of their functions:

a. Administrative section.
b. Personnel section, in charge of personnel assignment and control.
c. Technical section, which worked on technical problems that appeared during the planning stage. Its personnel consisted of engineers and specialized technicians.

d. Budget section, which drew up the budgets of all institute projects; personnel totaled about 20, most of whom were engineers working under a chief engineer.
e. Turbines section, comprised of an unknown number of engineers and technicians who specialized in the planning of turbines and their installation.
f. Electrical section, composed of an unknown number of electrical engineers and specialists working on the planning of electrical installations and high-tension lines for GES stations.

g. Construction works and plant planning section, composed of an unknown number of engineers, technicians, and draftsmen, who drew up plans for the works, plants, shops, and other services related to the construction of GES stations.

h. Architectural section, composed of an unknown number of architects, technicians, and draftsmen who worked on city planning.

i. Sanitation section, composed of an unknown number of engineers, technicians and draftsmen, in charge of the planning of water supply, drainage, and all factors related to city sanitation.

j. Hydroenergetics section, composed of the same type of personnel as those above, did research on such matters as power, production, and the number of turbines required.

k. Hydrology section, same compostion as above, in charge of hydrologic study of rivers and their basins.

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l. Geological section, same composition as above, conducted geolocigal studies of future construction sites.

m. Accounting section.

n. Records section, employing an unknown number of personnel. All projects completed by the Institute and all available materials related to these projects were filed here. Secret plans were filed in a special section;

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o. Locks section, employing technicians, engineers, specialists, and draftsmen, in an unknown number, who worked on lock projects. This section was secret but had no special guard. A special pass signed by the director was necessary to enter the section.

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4. The hydroenergetics, hydrology, and geology sections sent teams of specialists throughout the USSR to conduct studies on prospective GES sites. After the various Institute sections had carried out their projects, groups were organized at each GES site to coordinate the studies and work out the construction details. During construction, specialists from these groups directed the work, keeping the Institute informed as to work progress and carrying out small projects or modifying existing ones at the request of the GES management.

5. Any construction or hydroenergetics engineer, geologist, or other person whose field of specialization was related to work carried out by the Institute could apply for admission, providing there was a vacancy. The applicant presented his professional credentials to the personnel section. No other special documents were required and Communist Party membership was not obligatory.

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COUNTRY: USSR (Leningrad Oblast)

REPORT

SUBJECT: Leningrad Branch of the Institute of Hydroelectric Planning

DATE OF REPORT:

1. The Leningrad Branch of the Institute of Hydroelectric Planning was located on ulitsa Shchorsa, Petrogradskiy Storonnyy rayon, in Leningradskaya oblast. It was subordinate to the Ministry of Construction of Electric Power Stations (see sketch), showing the table of organization). The Institute was never known by another name. 50X1-HUM

Like other institutes of its kind, this Institute was connected with USSR hydroenergetics research centers and worked closely with them. The Leningrad Branch maintained contact with similar institutes through interchange of plans and ideas, the study of hydroelectric station models, analysis of concrete mixes, and studies of new structures.

2. The most important planning institute was located in Leningrad. 50X1-HUM no others of this type in the USSR other than the following:

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a. Moscow Branch of the Institute of Hydroelectric Planning (Mosgidep), located on Baumanskaya ulitsa, Baumanskiy rayon, Moscow.

b. Tbilisi Institute of Hydroelectric Planning: 50X1-HUM

c. Central Asian Institute of Hydroelectric Planning, Tashkent. Uzbekskaya SSR.

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ORGANIZATION OF THE LENINGRAD BRANCH OF THE INSTITUTE OF HYDROELECTRIC PLA...

Tblisi Institute of Hydro-electric planning

Ministry of Electric Power stations

Central Asian Instit of Hydro electric Planning

Ukrainian Inst. Hydroelectric planning

The Institute of Hydro-electric planning (Moscow)

Institute Director

Deputy Director

Leningrad Branch of the Institute Hydroelectric planning

Moscow branch of the Inst. of Hydroelectric Planning

Chief Engineer

Deputy Chief Engineer

Administrative section

Personnel section

Budget

Technical

Turbines

Electrical

Construction Works and Plant Planning

Architectural

Sanitation

Hydroenergetics

Hydrology

Geology

Accounting

Records

Locks

Teams of Specialists in the field

GES Planning Groups

On-the-site coordinating groups